SUPPLEMENTAL ARTICLE No. 7 Compendium of Potential Raw Water Sources Triangle J Council of Governments

Pursuant to Section 6 of the *Memorandum of Understanding Supporting a Regional* Water Supply Partnership for Water Supply Planning and Potential Joint Use of B. Everett Jordan Reservoir dated March 16, 2009 and amended July 7, 2015 (MOU), this Supplemental Article No. 7 defines the terms under which the *Compendium of Potential* Raw Water Sources will be developed by the Jordan Lake Partnership. The signatories to this Supplemental Article agree to reimburse the Lead Contractual Agency for actual costs incurred, according to cost shares defined below, up to the total cost shown.

Lead Contractual Agency: City of Durham

Project Scope:

The project scope is described in the *Proposal for Jordan Lake Partnership Work Plan PRIORITY 1 – Update & Expand Information on Potential Water Sources (Compendium of Potential Raw Water Sources)* document dated July 24, 2015 from Triangle J Council of Governments (Attachment A).

The project scope is described in detail within Attachment A as appears on pages 4-7 of this supplemental article.

Project Cost: The total project cost is \$29,262.00. Attachment A defines the breakdown of project costs in detail as appears on page 6 of this supplemental article.

Project Management Team: The Project Management Team will be made up of one representative from each of the signatories as appointed by that partner's Manager or Executive Director.

The Jordan Lake Partnership members participating in this work includes the following:

- Town of Apex
- Town of Cary
- Chatham County
- City of Durham
- Town of Hillsborough
- Town of Holly Springs

- Town of Morrisville
- Orange County
- OWASA
- Town of Pittsboro
- City of Raleigh
- Wake County

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Signatory Cost Shares: The costs will be split based on the relative Level 1, Level 2, or Level 3 base charges each Partner is paying under the MOU and are reflected in the following table:

Town of Apex	\$ 2,663.00
Town of Cary	\$ 5,321.00
Chatham County	\$ 1,139.00
City of Durham	\$ 5,321.00
Town of Hillsborough	\$ 1,139.00
Town of Holly Springs	\$ 1,139.00
Town of Morrisville	\$ 1,139.00
Orange County	\$ 1,139.00
OWASA	\$ 2,663.00
Town of Pittsboro	\$ 1,139.00
City of Raleigh	\$ 5,321.00
City of Sanford	\$ -
Wake County	\$ 1,139.00
Total	\$ 29,262.00

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COMPENDIUM OF POTENTIAL RAW WATER SOURCES

ATTACHMENT A

SCOPE OF WORK

SUPPLEMENTAL ARTICLE No. 7 Compendium of Potential Raw Water Sources Triangle J Council of Governments



TRIANGLE J COUNCIL OF GOVERNMENTS

4307 Emperor Boulevard, Suite 110 Durham, NC 27703

919.549.0551 FAX: 919.549.9390 www.tjcog.dst.nc.us

July 24, 2015

Mr. Donald Greeley Director, Department of Water Management City of Durham 101 City Hall Plaza Durham, NC 27701

Re: Proposal for Jordan Lake Partnership Workplan PRIORITY 1 – Update & Expand Information on Potential Water Sources (Compendium of Potential Raw Water Sources)

Dear Mr. Greeley,

Please find attached a proposal for completing the first priority for the Jordan Lake Partnership's technical support workplan to update and expand information on potential water sources. The cost for this proposed work is \$29,260, with a six-month timeline to complete the project.

This project supports long range water supply planning and would be an important task to complete before the Triangle Regional Water Supply Plan could be updated. The existing TRWSP was limited to sources that had been previously evaluated by individual utilities and selected for further evaluation or implementation; this project would include sources previously evaluated but not selected for inclusion in the TRWSP. The resulting documentation will serve as valuable background information for updating the TRWSP.

This project will result in a more complete portfolio of potential future raw water supply sources. It does not involve any new original research, but is instead designed to capture the information that was "cut" from the TRWSP if that source was not in any of the selected "collections of sources."

Please see the attached scope and budget for more details about the proposed project. If you have any questions or if I can provide any additional information, please do not hesitate to contact me at 919-295-0017 or mschlegel@tjcog.org. Thank you for the opportunity to assist you with this very important project. We look forward to continuing to work with the City of Durham and the Jordan Lake Partnership on secure and sustainable water supplies for the Triangle Region.

Sincerely,

Michael B. Schlegel,

Water Resources Program Manager

MISSION STATEMENT

To serve as an intergovernmental organization for local elected officials that works proactively on regional issues in order to sustain and improve the quality of life for our citizens.

SUPPLEMENTAL ARTICLE No. 7 Compendium of Potential Raw Water Sources Triangle J Council of Governments

PRIORITY 1: Update & Expand Information on Potential Water Sources

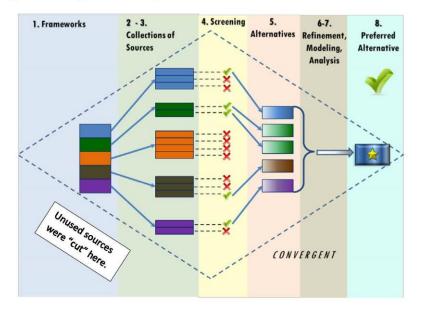
PURPOSE: Refine and expand summaries of information on potential water supply sources for the Triangle Region based on existing documents.

Background

This project supports *long range water supply planning* and would be an *important task* before the Triangle Regional Water Supply Plan could be updated. The 2014 TRWSP included Source Summaries for most sources that were included in one or more of the Collections of Sources considered by the Partners; these sources had been previously evaluated by individual utilities and were selected for further evaluation or implementation in the 2014 TRWSP. This Water Sources Information Compendium Project would compile information on sources not included the 2014 TRWSP. The updated and expanded source information will expand the portfolio of potential future water supply sources for consideration under a later update of the TRWSP.

Structure for Priority 1 Project

This project does not involve creating new information; instead, the project will capture information that was "cut" from the TRWSP if that source was not in any of the "collections of sources" considered through the screening and selection of preferred alternatives.



SUPPLEMENTAL ARTICLE No. 7 Compendium of Potential Raw Water Sources Triangle J Council of Governments

This project would produce four primary deliverables:

- A1. A **bibliography** listing documents with information on the potential sources and a **matrix** summarizing which documents contain information on which potential sources.
- A2. **Source Summaries** for any sources considered at any step of the TRWSP process that did not have Source Summaries included in the 2014 TRWSP. All information included in Source Summaries would be from existing documents.
- A3. A Memo summarizing **findings and remaining gaps** in information (yield, feasibility, challenges, costs, etc.) based on Deliverable A2.
- A4. A PowerPoint **presentation** summarizing existing information about yield, feasibility, challenges, costs, etc. related to specific potential sources, and highlighting information that needs to be generated or updated.

Scope of Work for TJCOG

The total estimated cost for this project is \$29,260, which is estimated to require 308 hours at a Budgeted Rate of \$95/hour. In practice, actual costs and hours will vary based on the assigned staff, but will not exceed the total budget.

Deliverable/Major Task	% of Total	Hours	Budget by Task
A1. Bibliography and Summary Matrix (SM)	34%	105	\$9,975
A2. Additional and Revised Source Summaries (SS)	40%	122	\$11,590
A3. TM of findings and remaining information gaps	13%	41	\$3,895
A4. PowerPoint presentation	3%	10	\$950
PM: Project management	10%	30	\$2,850
	100%	308	\$29,260

See next page for a detailed scope of work.

	Draft Scope: Revised July 24, 2015	Percent	Total	SCH	EDULE	and H	OURS	by MC	HTN
Deli	verable	of Total	Hours:	M1	M2	М3	M4	M5	M6
	Tasks	Hours	308	41	59	57	55	74	22
41.	Bibliography and Summary Matrix (SM)	34%	105	31	41	33	0	0	0
	Create templates for Bibliography and its entries		2	2					
	Create SM template and notation conventions		6	6					
	Obtain JLP input on templates via email; revise if necessary		4	4					
	Review refs in Vol.1 Individual Source Summaries against appendix	x	1	1					
	Obtain compiled Characklis model source info (Excel files)		0						
	Reformat refs in Vol.1 to Bibliography format		6	6					
	Create new entries for Bibliography from new docs/info		10	5	5				
	Ask JLP to review Bibliography for completeness		2	2					
	Skim information from Bibliography to populate SM		31	5	26				
	Review Bibliography documents for refs to additional docs		12		10	2			
	Obtain additional (secondary) documents/information		6			6			
	Scan additional documents not already available digitally		0						
	Create entries for additional documents in Bibliography		8			8			
	Skim additional documents to populate SM		12			12			
	Check SM against existing Source Summaries' content		5			5			
	[no tertiary-level document retrieval/review]								
12.	Additional and Revised Source Summaries (SS)	40%	122	0	14	20	51	37	0
	Create a table listing existing Source Summaries		4		4				
	Decide how to handle SS with variations or conflicting info		4		4				
	Create a consistent naming and unique IDs for Sources		4		4				
	Define with JLP what constitutes an information "gap"		2		2				
	Refine existing SS based on review of A1 documents		40			20	20		
	Develop new SS based on review of A1 documents		50				25	25	
	Flag potential gaps and send all SS to JLP for review		12				6	6	
	Revise SS based on JLP review and update Appendix C		6					6	
4 <i>3.</i>	TM of findings and remaining information gaps	13%	41	0	0	0	0	33	8
	Review all gaps in revised SS and outline TM		5					5	
	Summarize gaps based on flags in revised SS		10					10	
	Review gaps with JLP and prioritize gaps for future research		2					2	
	Develop graphics for memo and PowerPoint presentation		16					16	
	Send memo for JLP review via email; revise memo		8						8
14.	PowerPoint presentation(s)	3%	10	0	0	0	0	0	10
	Develop master presentation		10						10
PM:	Project management	10%	30	10	4	4	4	4	4
	Execute Agreement for Project 1		3	3					
	Set up project in Sage; TJCOG budget amendment		3	3					
	Establish and monitor project schedule		12	2	2	2	2	2	2
	Run Sage report monthly after indirect has been allocated		0						
	Monitor budget (enter Sage costs and recalculate burn rate)		6	1	1	1	1	1	1
	Invoice and report on progress to JLP		6	1	1	1	1	1	1
	Prepare annual budget package for TJCOG Finance		0	1					

Participant: TOWN OF APEX	
Bruce Radford, Town Manager	Date
ATTEST:	

Participant:	TOWN OF CARY	
	Benjamin T. Shivar, Town Manager	Date
ΔΤΤΕ ςΤ·		

Participant:	CHATHAM COUNTY		
	Charlie Horne, County Manager	 Date	
ATTEST.			

Participant: CITY OF DURHAM	
Thomas J. Bonfield, City Manager	Date

Participant: TOWN OF HILLSBOROUGH	
Eric Peterson, Town Manager	Date
ATTEST:_	

Participant: TO	WN OF HOLLY SPRINGS		
	Charles Simmons, Town Manager	Date	
ATTEST:			

Participant: T	OWN OF MORRISVILLE	
	Martha Wheelock, Town Manager	Date
ATTEST:		

Participant: ORANGE COUNTY	
Bonnie B. Hammersley, County Manager	Date

Particinant:	OWASA (Orange Water and Sewer Authority)		
Participant:	OWASA (Orange water and Sewer Authority)		
	Ed Kerwin, Executive Director	Date	
ATTEST:			

rticipant: TOWN OF PITTSBORO		
]	Bryan Gruesbeck, Town Manager	Date
TTEST:		

Participant: CITY OF RALEIGH		
Ruffin Hall, City Manager	Date	
ATTEST.		

Participant: WAKE COUNTY	
ATTEST	
Clerk	James K. Hartmann County Manager County of Wake
Date	
APPROVED as to form:	This instrument has been preaudited in Accordance with the provisions of the Local Government Budget and Fiscal Control Act.
Scott W. Warren County Attorney	Finance Officer County of Wake
The person responsible for monitoring the	contract performance requirement is:
Eric Staehle	Mark Forestieri, Director Facilities Design & Construction